



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/649,793

08/28/2003

Gregory Cole

029211.52672US

5573

23911

7590

04/20/2006

CROWELL & MORING LLP
INTELLECTUAL PROPERTY GROUP
P.O. BOX 14300
WASHINGTON, DC 20044-4300

EXAMINER

HARRIS, KATRINA B

ART UNIT

PAPER NUMBER

3747

DATE MAILED: 04/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

Office Action Summary	Application No. 10/649,793	Applicant(s) COLE ET AL.	
	Examiner Katrina B. Harris	Art Unit 3747	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/16/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1- 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Clancey et al. (4,835,405).

Clancey et al. discloses, as in **claim 1**, a power generator (10), comprising an engine (20) composed of a light alloy material and having a flywheel (212a), and an alternator (420) operatively associated with the flywheel to form an integrated unit with the engine.

Note: The terms “portable and light weight material” in the preamble is not given weight because it is not in the body of the claim

Regarding **claim 2**, wherein an engine cowling is provided to function as at least two of a fan shroud (210), a fan scroll, a distributor to cool the engine (20) and the alternator, an electronic cold plate and one or more coolant ducts.

Regarding **claim 3**, wherein the distributor function of the engine cowling separates air flow to cool an engine head and cylinder wall of the engine as well as an oil sump.

Regarding **claim 4**, wherein the engine is an internal combustion engine.

Art Unit: 3747

Regarding **claim 5**, wherein the alternator is the sole component driven by the engine.

Regarding **claim 6**, wherein the engine includes an engine block and an engine block cover.

Regarding **claim 7**, wherein the light alloy material is a magnesium alloy.

Regarding **claim 8**, wherein the engine further includes an engine head composed at least in part of a high temperature material.

Regarding **claim 9**, wherein the alternator includes a cooling fan.

Regarding **claim 10**, wherein the cooling fan is selected from the group consisting of a centrifugal fan, an axial fan and a mixed- flow fan.

Regarding **claim 11**, wherein an engine cowling is provided to function as at least two of a fan shroud, a fan scroll, a distributor to cool the engine and the alternator, an electronic cold plate and one or more coolant ducts.

Regarding **claim 12**, wherein the distributor function of the engine cowling separates air flow to cool an engine head and cylinder wall of the engine as well as an oil sump.

Regarding **claim 13**, wherein a fan shroud for the cooling fan is operatively associated with the engine cooling to force air through the engine cowling.

Regarding **claim 14**, wherein the cooling fan provides a mechanical link between an inertia component and a mounting portion of the flywheel.

Regarding **claim 15**, wherein a lightweight alloy in the cooling fan constitutes the mechanical link and magnetic materials of the alternator's rotor provides the inertia component.

Regarding **claim 16**, wherein the alternator is a permanent magnet alternator.

Regarding **claim 17**, wherein the alternator and flywheel constitute a two-piece construction.

Regarding **claim 18**, wherein the alternator is a radial gap, twelve-pole alternator.

Regarding **claim 19**, wherein the alternator and flywheel constitute a two-piece construction.

Regarding **claim 20**, wherein means is provided for converting alternating current produced by the alternator into direct current.

Regarding **claim 21**, wherein the converting means comprises prepackaged rectifiers.

Regarding **claim 22**, wherein an engine cowling is provided to function as at least two of a fan shroud, a fan scroll, a distributor to cool the engine and the alternator, an electronic cold plate and one or more coolant ducts.

Regarding **claim 23**, wherein the distributor function of the engine cowling separates air flow to cool an engine head and cylinder wall of the engine as well as an oil sump.

Regarding **claim 24**, wherein at least one coolant duct is associated with the oil sump which includes fins in the duct channel to enhance cooling.

Art Unit: 3747

Regarding **claim 25**, wherein the converting means is arranged at the engine cowling.

Regarding **claim 26**, wherein the alternator is configured to produce three-phase power in parallel circuits.

Regarding **claim 27**, wherein the converting means comprise full-wave rectifiers.

Regarding **claim 28**, wherein an engine cowling is provided to function as at least two of a fan shroud, a fan scroll, a distributor to cool the engine and the alternator, an electronic cold plate and one or more coolant ducts.

Regarding **claim 29**, wherein the converting means is arranged at the engine cowling.

Regarding **claim 30**, wherein a backpack mounting is provided for the engine and alternator.

Regarding **claim 31**, wherein the engine and alternator are configured to produce a power output of up to about 5 kW.

Regarding **claim 32**, wherein a rollcage mounting is provided for the engine and alternator.

Regarding **claim 33**, wherein the engine and alternator are configured to produce a power output of up to about 15 kW.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 3747

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-33 are alternately rejected under 35 U.S.C. 102(e) as being anticipated by Yamada et al. (2004/0021320). Yamada et al. discloses a portable power generator (10), comprising an engine (12) composed of a light alloy material (see paragraph [0029]) and having a flywheel (62), and an alternator (22) operatively associated with the flywheel to form an integrated unit with the engine.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 4,647,835 issued to Fujikawa et al. is a similar light weight portable generator. U.S. Patent No. 5,929,611 issued to Scott et al. is a similar light weight portable generator. U.S. Patent No. 6,489,690 issued to Hatsugai et

al. is a similar light weight portable generator. U.S. Patent No. 6,758,169 issued to Suzuki et al. is a similar generator.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Response to Arguments

Applicant's arguments filed January 27, 2006 have been fully considered but they are not persuasive. Newton's law of motion with regards inertia is a tendency of a body at rest, to remain at rest or if a body is in a straight line motion, to stay in motion unless acted upon by an outside force. Therefore, inertia is inherent in the prior art made of reference.


Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katrina B. Harris whose telephone number is 571-272-4842. The examiner can normally be reached on 5:30 AM -2:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Yuen can be reached on 571-272-4856. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KBH


**MAHMOUD GIMIE
PRIMARY EXAMINER**

Katrina B. Harris
Examiner
Art Unit 3747